



Rochester Institute of Technology

College of Graphic Arts & Photography
School of Photographic Arts & Sciences

One Lomb Memorial Drive
P.O. Box 9887
Rochester, New York 14623-0887

NASA-CR-177173

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LANDSAT 4 BAND 6 DATA EVALUATION

Contract #NAS5-27323

8th Quarterly Report

September 15, 1984

Prepared for:

NASA/Goddard Space Flight Center
Greenbelt, Maryland 20771

(NASA-CR-177173) LANDSAT 4 BAND 6 DATA
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Objectives:

The objectives of this investigation are to evaluate and monitor the radiometric integrity of the Landsat-D Thematic Mapper (TM) thermal infrared channel (Band 6) data to develop improved radiometric preprocessing calibration techniques for removal of atmospheric effects.

Accomplishments:

Efforts this period have concentrated on underflight data collection. Two successful flights were made on September 18 and October 6. The radiosonde data for these flights has been obtained. The TM data were ordered.

The TM photo images for the underflight of June 22nd were received and indicate good coverage. The digital data were received and returned when they were found not to be the proper tapes. A reorder has been placed.

Efforts during the next reporting period will concentrate on analysis of the underflight data. Flight logs for all underflights are attached.

Significant Results:

See attachment.

Publications:

Schott, J.R. "The Role of the Atmosphere in Modeling the Thermal Infrared Radiation Imaged by Airborne or Space-Based Sensors" Proceedings of the Council for Optical Radiation Measurement Conference, Gaithersburg, Maryland June 1984.

Recommendations:

None this reporting period.

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Funds Expended:

\$72,093.92 representing 52% of the total program effort.

Data Utility:

The potential for quantitative assessment of thermal features
TM Band 6 appears very high based on the limit data received thus
far.

JRS/crs

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